

Appl. No. 10/552,022  
Amdt. dated March 13, 2007  
Reply to Office action of December 15, 2006

Amendments to the Specification:

The words : « spiral » and « spirals » in paragraphs [0057] , [0058] , [0061] , [0063] are not correct they are replaced by : « turn » and : « turns », and « (TU) » is added immediately after the words : « turn » and : « turns » to refer to the drawings.

The word : « stress » in paragraphs [0059] , [0061] , [0072] , [0085] , is not correct it is replaced by : « strain ».

In paragraph [0055] « (G) » is added immediately after the word : « Grooves » to refer to the drawings.

The word : « ring » in paragraph [0061] is not correct it is replaced by « spring ».

The paragraph [0085] is now illustrated by a new figure 4, « (5p) » is added immediately after : «...are replaced by stress gauge variable resistors » and « (SH) » is added immediately after : « shims » to refer to drawing.

Please replace paragraph [0051] with the following amended paragraph:

[0051] Finger Figure 4 represents a variant of the handling bar by a cross-sectional view of a fraction of the handling bar, an interior transparent view from T to T' it.

Please replace paragraph [0055] with the following amended paragraph:

[0055] Grooves (G) between the variable resistors (3) are made on the circumference of the tube (2).

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As shown on figure 1 previously filed on PCT FR 2003/001230 (april 17 2003) The spring (4) is arranged in a way that its turns are appreciably perpendicular with regard to the flexible handling bar (1)

Please replace paragraph [0057] with the following amended paragraph:  
[0057] A metal spring (4) 1095 millimetres long, with an external diameter of 45 millimetres and a wire diameter of 4 millimetres, the spirals turns (TU) of which are spaced 10 mm from each other, is placed inside the tube (2). The spring (4) is arranged in a way that its turns (TU) are appreciably perpendicular with regard to the flexible handling bar (1).

Please replace paragraph [0058] with the following amended paragraph:

[0058] The last spiral turn (TU) of each end of the spring (4) closes on itself in such a way that the wire of the spring (4) ends with two parallel circles.

Please replace paragraph [0059] with the following amended paragraph:

[0059] Twelve bending sensor stress strain gauge variable resistors (5) are distributed in three groups of four inside the spring (4).

Please replace paragraph [0061] with the following amended paragraph:

[0061] The four bending sensor stress strain gauge variable resistors (5) of each group are distributed evenly on the crown of the ring spring (4) on the inside between two spirals turns (TU) and attached to these spirals turns (TU) in such a way that the resistance value of at least one of these resistors (5) is modified when two respective parts of these two spirals turns (TU) move apart from each other whatever the orientation of the bending applied to the handling bar (1).

Please replace paragraph [0063] with the following amended paragraph:

[0063] Fine holes or fine notches may be made on the spirals turns (TU) of the spring (4) to facilitate the attachment of these bending sensors (5) to the spirals turns (TU) of the spring (4) and avoid rubbing of these bending sensors (5) against the inside of the tube (2).

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Please replace paragraph [0072] with the following amended paragraph:

[0072] These strips (CS) are tautened and attached to the support (9) in such a way that when they are subjected to an upward bending stress, i.e. towards the handling bar (1), or a downward bending stress, the resistance value of at least one bending sensor stress strain gauge variable resistor (10) is modified.

As shown on figure 3 previously filed on PCT FR 2003/001230 (april 17 2003) the strain gauge variable resistor (10) is connected by an extremity to a point of a control strip (CS) and by the other extremity to a point of the support (9).

Please replace paragraph [0073] with the following amended paragraph:

[0073] These variable resistors (10) are each attached on one side to the support (9) and on the other side to a strip (CS). These variable resistors (10) are each connected by an extremity to a point of a control strip (CS) and by the other extremity to a point of the support (9).

Please replace paragraph [0085] with the following amended paragraph:

[0085] According to an unillustrated illustrated variant in figure 4. the bending sensor stress strain gauge variable resistors (5) installed between two spirals turns (TU) of the spring (4) are replaced by stress gauge variable resistors (5p) sensing the surface pressure, glued on shims (SH) attached to one of the two spirals turns (TU), the resistance value of which is modified when a part of the other spiral turn (TU) presses against it.